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16. Abstract

Phase I of this study was funded by OTC and was successfully completed in December, 2006. In phase I, ODOT highway projects were classified into three different Tiers through the evaluation of recently completed highway projects and a series of technical meetings and discussions with ODOT design division engineers, schedulers, contractors and FHWA-Oklahoma Division engineers. Phase I has developed a manual system to determine the contract time for Tier II highway projects.

Phase II has expanded from Phase I and developed a standalone computer software to automatically determine the contract time of Tier II and Tier III projects when quantities of controlling activities are given. The developed software, namely, OK-CTDS uses VB.Net as a main programming language to build graphic user interfaces (GUIs) and uses the Microsoft Access as a main database. The program is linked with the Microsoft project to automatically generate a project schedule and the critical path of the project. The OK-CTDS has an internal function to automatically transfer all the project data to the Microsoft project from the developed software. The validation results show that the developed system can produce a reasonably accurate contract time for highway projects. During the Fall of 2007, the research team has trained more than 50 ODOT engineers and consultants involved in designing highway projects. The training program was very well received by the participants and their responses were very positive. The OK-CTDS software program can be used as a supporting tool for division project schedulers and also can be used as a training tool for new engineers.

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